UNITED
NATIONS

TD

United Nations Conference on Trade and Development

Distr.
GENERAL

TD/B/COM.3/15
07 September 1998

Original: ENGLISH

TRADE AND DEVELOPMENT BOARD
Commission on Enterprise, Business
Facilitation and Development
Third session
Geneva, 23 November 1998
Item 4 of the provisional agenda

Trade efficiency assessment methodology (TEAM)

An update

Note by the UNCTAD secretariat

GE.98-51624

I. Background

1. UNCTAD's efforts in the area of Trade Efficiency started in the early 1990s, when the Trade Efficiency Programme received the official endorsement of UNCTAD VIII (Cartagena de Indias, Colombia, March 1992). The programme was later reinforced by the conclusions of the United Nations International Symposium on Trade Efficiency (UNISTE, Colombus, Ohio, October 1994) and of UNCTAD IX (Midrand, South Africa, May 1996).

2. At the first session of the Commission on Enterprise, Business Facilitation and Development (Geneva, 20-24 January 1997), the secretariat was requested to pursue its work on formulating an analytical and methodological basis for trade efficiency assessments. A proposal for a trade efficiency assessment methodology (TEAM) was therefore presented at the second session of the Commission (Geneva, 1-5 December 1997)[1].

II. Outcome of the second session of the Commission

3. The methodology proposed was generally well received by members. It was recognized by some countries as an excellent basis for measuring the implementation of the Columbus recommendations, setting up Trade Points and taking advantage of new opportunities. The pioneering role of UNCTAD in electronic commerce was recognized and the need to update the trade efficiency strategy taking into account the most recent developments in this area was expressed. Some other countries considered that it would allow interested countries to receive an overall picture of their efforts and provide a clear link between international policy dialogue and overall national implementation. The demand-driven nature of the methodology was underlined. A further group of countries recognized the need to assess the quality of a country's services infrastructure and recognized the advantage of having SEES participate in the evaluation.

4. However, several countries expressed concern that the practical application and widespread use of TEAM might be an excessively ambitious objective, considering the limited resources available both in UNCTAD and in the field for such a detailed exercise. It was suggested that, initially, TEAM should focus on a limited number of sectors.

5. Practical proposals were made along those lines, as reflected in the agreed conclusions of third session of the Commission.[2] For example, it was proposed to develop a "trade efficiency self-evaluation kit" which would allow interested countries to carry out at least the first phase of TEAM without external assistance.

---

[1] Document TD/B/COM.3/10/Add.1.

[2] Document TD/B/COM.3/11 (TD/B/5/3).

III. Follow-up

6. In the absence of specific resources (budgetary or extrabudgetary) allocated to the pursuance of the secretariat's work on TEAM, two parallel paths have been pursued:

(a) The secretariat pursued its consultations with members, in particular donors and beneficiaries of the Trade Point programme. Contributions to the external evaluation of the programme, in particular, made it possible to examine further some components of TEAM and their applicability to countries with Trade Points. It is expected that the evaluation should yield interesting results in this respect: knowing how countries have been able to use Trade Points to implement their trade efficiency policies will certainly enhance the secretariat's ability to simplify and focus TEAM, including through self-evaluation kits;

(b) The secretariat took advantage of field missions to assess how TEAM could be made into a more practical and more economical exercise. One such mission took place in late 1997 in Cambodia, and it provided a first opportunity to present a practical approach to a 'simplified TEAM' in the particular case of an LDC.[1]

7. It is the intention of the secretariat to pursue its efforts to develop and implement TEAM on the basis of continued cooperation with other organizations involved in similar trade assessment exercises, such as WTO and ITC. Continued efforts will also be made to maintain complementarity and identify synergies with other UNCTAD reviews such as science, technology and innovation policy reviews and investment policy reviews.

IV. Main lessons learnt from the Cambodia trade efficiency study

8. Following the official visit that the Secretary-General of UNCTAD paid to Cambodia, at the request of the Government, a Memorandum of Understanding was signed between the Government of Cambodia and UNCTAD in March 1997. It was agreed to initiate immediate action to prepare and implement a programme of technical cooperation for trade and related development issues, including a trade efficiency assessment. In particular, UNCTAD was invited to undertake, with the cooperation of the Cambodian Chamber of Commerce, a review of the efficiency of trading operations relevant to the increased participation of small and medium-sized enterprises in international trade, leading to the establishment of a Trade Point in Cambodia.

---

[1] The UNCTAD Cambodia Trade Efficiency Report is being made available to at this session of the Commission as a background document (UNCTAD/SDTE/SMSE/Misc.1). Some of the main lessons of this exercise are summarized in section IV below.

9. Following the subsequent trade efficiency mission which took place in November 1997, and in the light of the agreed conclusions of the second session of the Commission on Enterprise, Business Facilitation and Development, a report was issued, providing a first attempt to illustrate a possible 'simplified trade efficiency assessment'. It focused on a small number of selected sectors : transport, telecommunications, business information and trade-related financial services.

10. The method used in Cambodia relied heavily on direct interviews with operators (transport, telecommunications), service suppliers (banking, insurance) and users (exporters). It allowed a rather subjective assessment of the critical points where trade efficiency could be enhanced: no attempt was made to establish quantitative indicators of trade efficiency by sector or for the trade transaction chain as a whole.

11. The results obtained however lead to the following conclusions:

(a) A useful 'simplified TEAM' exercise can be carried out in countries like Cambodia with relatively limited resources (on the part of both UNCTAD and local participants[1]);

(b) The interest of local government authorities in new developments in electronic commerce enhanced their support for a TEAM exercise;

(c) Proper preparation of the various local players (e.g. through the distribution of questionnaires a few weeks before the mission) is clearly an ingredient for the success of a TEAM exercise; however, the reluctance of some participants to divulge sensitive commercial information should not be underestimated[2].

12. The questions which remain to be addressed include the following:

(a) How much more expensive would a 'simplified TEAM' study be in a country offering characteristics different from those of Cambodia, for example a larger country with a more complex distribution of participants or a greater number of players?

(b) How representative the case of Cambodia can be considered to be to serve as a basis for the production of a 'trade efficiency self-evaluation kit'? If it is felt useful to carry out more preliminary assessments, which countries (or types of countries) should be included?

---

[1] Altogether, the mission lasted less than two weeks.

[2] In the case of Cambodia, this was particularly clear for financial services.

UNITED
NATIONS

TD

United Nations Conference
on Trade and Development

Distr.
GENERAL

TD/B/COM.3/16
16 September 1998

Original: ENGLISH

TRADE AND DEVELOPMENT BOARD
Commission on Enterprise, Business
Facilitation and Development
Third session
Geneva, 23 November 1998
Item 4 of the provisional agenda

Policy issues relating to ACCESS TO PARTICIPATION IN ELECTRONIC COMMERCE

Report by the UNCTAD secretariat

Executive summary

This document has two main objectives: (1) to assess the current state of connectivity/accessibility of various countries and groups of countries to Internet-based electronic commerce; and (2) to identify main areas in which policy issues need to be addressed in order to enhance access to participation in e-commerce.

The true revolution (and rapid growth) in electronic commerce has come from its Internet-based component. From the point of view of smaller players (including small and medium-sized enterprises and the majority of developing countries), this means that, in many respects, their ability to participate in worldwide electronic commerce will depend directly on their ability to connect to the Internet. Available data show exponential growth of Internet connectivity worldwide, with even higher growth rates in the developing world. However, inequalities in this respect remain strikingly high, since the capacity to produce, store and disseminate information on the Internet remains heavily concentrated in the more advanced countries. This phenomenon may not be reversed if current cost structures are not modified: if Internet access remains scarce and expensive in developing countries, their participation in electronic commerce will remain limited to traditional 'subcontracting' or 'pre-contractual' relationships.

In order to formulate and implement appropriate policies regarding access to participation in electronic commerce, Governments will need to consider the areas in which electronic commerce is most likely to bring benefits to their respective national economies; business-to-business, business-to-consumer and business-to-government transactions need to be considered in that respect.

GE.98-51708

Introduction

1. Internet based electronic commerce has started to challenge and revolutionize the analytical and practical bases of international trade:

(a) Because it has the potential to reduce transaction costs globally, it reduces traditional geographical disadvantages, especially those linked to distance,

(b) Because it allows direct contractual relations between buyers and sellers, it contributes to the emergence of new competitors in an increasing number of markets; smaller firms (and smaller economies) can now become successful competitors on international markets, and,

(c) Because it is based on information networks and information flows, it enhances transparency in markets by making buyers and sellers almost instantaneously aware of the price, quality and delivery conditions offered by various competitors.

2. Internet-based electronic commerce hence holds significant promise for trade and development, especially for those developing economies which, until now, have found it difficult to implement successfully diversification and trade efficiency strategies, for example. However, all the expected positive effects of such commerce will not materialize unless two sets of conditions are met:

(a) Like any new market, electronic commerce will require a delicate mix of freedom and rules; because it is global by nature, electronic commerce will require a well balanced set of global rules in order to be freed from inhibiting restrictions at the national levels;

(b) The present inequalities separating countries and enterprises in terms of accessibility, connectivity and prices will need to be addressed as a matter of priority.

3. The present document focuses on providing an up-to-date description of the current state of Internet-based electronic commerce, both from a global and from a regional and national point of view. Priority attention is given to connectivity issues, as well as to the potential uses which enterprises can make of the new tools of electronic commerce. The development of electronic channels to support business-to-business commerce, retail commerce and government procurement are analyzed in that content. The analysis includes a review of several current initiatives to enhance trade efficiency through the application of telecommunications and information technology in the various elements of the international trade process.

A. Overview of recent trends affecting Internet-based electronic commerce

4. The past several years have seen an explosion in the use of the Internet as a channel for global commerce, facilitating the sale of both virtual goods (e.g. online information, software and services) and physical merchandise. Although enterprises and individuals in many developing and transitional economies are already participating to some degree in electronic commerce, the major commercial impact to date has been felt in the United States, Europe and Japan. Traditional marketing and customer service paradigms for whole industries (e.g. travel, stockbroking, bookselling) are being re-engineered to

---

This document is being published simultaneously on the UNCTAD website (http://www.unctad.org). Many of the references to institutions, enterprises, documents and so on are identified as "hyperlinks" in the electronic version of the document, so that the user can click on the highlighted text to go directly to the relevant website.

take advantage of the interactive functionality, ease of information exchange and cost efficiencies offered through the use of Internet-based distribution channels.

1. Growth in Internet usage

5. One of the key factors driving this dramatic growth in electronic commerce among the industrialized economies has been the achievement of a critical mass of online users. International Data Corporation (IDC) has estimated the current Internet user population at 100 million, and it envisages that this worldwide figure will increase to 320 million by 2002. It also predicts that "most of the growth in Web usage will come outside of the United States as more people in developing countries embrace information technology."

2. Growth of Internet sites worldwide

6. The number of Internet hosts, or servers connected to the Internet, has also been rapidly increasing since the first survey was conducted by Network Wizards in 1995. The growth in total hosts is summarized in table 1 below.

Table 1: Number of Internet hosts worldwide

Survey Date	Jan-95	Jul-95	Jan-96	Jul-96	Jan-97	Jul-97	Jan-98	Jul-98
Hosts (000s)	5,846	8,200	14,352	16,729	21,819	26,053	29,670	36,739

Source: NUA, How Many Online?; Nielsen/CommerceNet Survey

7. Growth, however does not mean equality: the density of Internet hosts in selected countries is presented in table 2 below, expressed as the number of people per Internet server.

Table 2: Number of people per Internet server, for selected countries

Country/territory	People per server	Country/territory	People per server
Finland	25	Hong Kong, China	310
United States	50	Japan	470
Australia	60	South Africa	930
Canada	70	Rep. of Korea	1,550
Netherlands	90	Brazil	8,000
Singapore	125	Thailand	15,000
United Kingdom	130	Indonesia	87,000
Germany	180	China	561,000
Israel	185	India	1,200,000

Source: Killen & Associates; Network Wizards

3. Growth in revenues from electronic commerce

8. Electronic commerce has been growing steadily throughout the 1980s and 1990s, but until the mid-1990s most of this commercial activity was taking place on private-sector value-added networks (VANs), such as those operated by GEIS and IBM. Most of the business-to-business commerce involved large manufacturers in industries such as auto and retail merchandise placing orders with their suppliers. Many government agencies also disseminated procurement notices and accepted bids from vendors through these VANs.

9. During this period, a number of consumer and business-oriented online services, such as Compuserve, Prodigy and Dialog/DataStar, began expanding their proprietary networks internationally or distributed their services abroad through commercial VANs.

10. Beginning in 1994, a number of fee-based information services began operations on the World Wide Web, followed very quickly by companies selling consumer and industrial goods, as well as providing intermediary services such as obtaining quotes for insurance cover. By 1997, the total value of electronic commerce being conducted on the Internet was estimated by IDC at US$ 8 billion. Forrester Research and Simba Information both estimate the 1997 figure at US$ 9 billion. IDC recently projected that total electronic commerce revenues will rise to US$ 400 billion by 2002 although Simba predicts a more modest figure of US$ 102 billion.

11. Simba Information also predicts that total revenue from electronic commerce (including Internet, VANs and CD-ROM) will reach US$ 28.8 billion in 1998, with the business-to-business component of this revenue stream totalling US$ 19 billion. They forecast that this latter figure will grow to US$ 58 billion by 2002. Other researchers foresee much more robust growth -- Forrester Research predicts that business-to-business electronic commerce revenue alone should reach US$ 327 billion by 2002.

12. Although differing forecasting methodologies and definitions of electronic commerce are employed by the research houses quoted in this paper, the various projections all point to double-digit increases in electronic commerce activity in the coming years.

B. Regional perspectives

13. Although Internet use and electronic commerce are growing throughout the world, there are significant variations in absolute levels and growth rates, both among industrialized countries and between the developed and the developing world. The following discussion provides some perspectives on these regional developments, followed by an analysis of the impact on consumer, business-to-business and government purchasing activities.

1. Europe

14. Growth in European Internet usage and electronic commerce initially lagged behind that in the Unite States, but the proliferation of Internet service providers (ISPs) and online services (e.g. AOL) has helped fuel significant

recent growth.

15. Germany and the United Kingdom have the largest populations of Internet users (6.1 million and 7.2 million, respectively), although the overall Internet penetration (percent of population online) is only 7.3% and 12.8% respectively. Internet penetration is highest in Scandinavia, including Sweden (27% online), Norway (32.5%) and Finland (35%). France has 3.8 million Internet users (6.5% of population), though this does not include the millions of Minitel users, which represented a significant source of electronic commerce activity long before the emergence of the Web.

16. Forrester Research has estimated that electronic commerce in Europe will total approximately US$ 1.2 billion in 1998, rising to US$ 64.4 billion by 2001, with the majority of the volume growth (88%) coming in business-to-business commerce. A recent survey of 900 Western European businesses (of all sizes) by MORI found that almost half of their directors expressed confidence that "electronic commerce is the best option for the future of their business". Of the firms polled which are active on the Internet, nearly 25% indicated that they were already showing a profit from their online activities and 58% have realized significant cost savings through their use of the Internet (e-mail and World Wide Web) in conducting business.

17. Many SMEs in Europe appear to be taking a close look at opportunities in electronic commerce. A British Telecom-sponsored survey published in August 1998 showed that 54% of medium-sized companies and 33% of small companies have an Internet presence (E-mail and/or World Wide Web). Of the firms which had Internet access, 66% indicated that e-mail was now crucial to their business. In an earlier study by the same group, 91% of the firms surveyed indicated that the Internet would be an intrinsic part of their business' future.

2. Africa

18. African connectivity has improved significantly since the early 1990s but is still at very low levels compared to the developed economies.[1] There are now almost 150,000 Internet hosts in Africa, as well as over 250 ISPs. The majority of the current users are in South Africa (600,000), and only one out of every 8,000 people elsewhere in Africa is an Internet user. Countries in Africa leading the growth in Internet usage include Senegal (2,500 users), Tunisia (3,500), Ghana (4,500), Kenya (5,000), Morocco (6,000) and Zimbabwe (10,000).

19. In 1996, only 16 African countries were connected to the Internet. Today, over 75% of the 53 capital cities in Africa enjoy full Internet access. About 10 countries provide local-call Internet access in a second major city, while more than 10 others offer local-call access to the Internet throughout the country. However, connectivity in rural Africa continues to be problematic.

20. The cost of even dial-up Internet access remains high in many African countries. The table in Annex III summarizes the annualized cost of just five hours per month of Internet access time in selected African countries. The annual cost ranges from a low of US$ 136 in Botswana to as high as US$ 1,740 in Angola. This compares with an average cost for 20 hours of Internet access

---

[1] See Annex I.

[2] See Annex II.

(phone and ISP fees) of US$ 29 per month (US$ 348 annualized) in the United States, US$ 74 (US$ 888 annualized) in Germany and US$ 65 (US$ 780) in the United Kingdom, according to a recent OECD paper.[4] Taking into account the differences in per capita income, Internet access costs in Africa are still very expensive for local residents. As many parts of rural Africa do not even have wireline telephone services, these areas can only access the Internet through cellular, wireless local loop or satellite telephone connections, which are typically even more expensive.

3. Middle East

21. Countries in the Middle East which permit public access to the Internet have seen substantial increases in the number of users online.[5] Israel leads the region in total Internet population and penetration, with 300,000 users (5.5% of the population), followed by the United Arab Emirates with 88,600 users (3.0%), Egypt with 61,000 users (0.1%) and Lebanon with 43,800 users (1.1%). Israel has 88,000 Internet hosts, which compares to just under 14,000 in the United Arab Emirates, 5,600 in Kuwait and slightly over 2,000 in Egypt.

22. A recent survey by the DIT Group estimated the total value of electronic commerce in the Middle East at between US$ 9 and 11.5 million in 1997. Only a small minority of the Internet services providers (ISPs) interviewed for the survey accepted payments through their World Wide Web sites or those which they manage for their clients. Only 20% of the ISPs surveyed offered secure transaction capabilities. As a result, the survey estimated that only 4% of users from the region had actually made purchases through the Internet in the past year, mostly from companies outside the Middle East. However, the Arab software companies participating in a separate component of the study indicated that they expected that up to a third of their transactions would take place through the Internet in the next 2-3 years[6].

4. Latin America and the Caribbean

23. Latin America has been experiencing explosive growth in Internet use over the past several years. Estimates of the number of Latin Americans online today range from 4.5 million (Nua) to over 8.5 million (Nazca Saatchi & Saatchi). Nazca Saatchi & Saatchi also projects that the Internet population in the region will grow to 34 million by 2000 and that the number of Latin American World Wide Web sites, mostly business-oriented, will reach 500,000 by 1999.[7]

24. Trade liberalization and economic growth have released a huge amount of pent-up demand for information technology at the business and consumer level. For example, in 1993 only about 44,000 PCS were sold in Brazil, whereas in 1997

---

[4] Dismantling the Barriers to Global Electronic Commerce, OECD Briefing Paper (1997).

[5] See Annex IV Egypt is included in these figures, as well as in separate estimates for Africa presented in Annex II.

[6] In selected countries, such as Egypt, a number of information providers and commercial firms are already offering services through the Internet. Indeed, one Cairo supermarket has established a World Wide Web site where busy consumers can order their groceries online for home delivery.

[7] See Annex V.

this figure reached 2.5 million. Latin American consumers are apparently less wary of purchasing online than in some other regions. The Nazca Saatchi & Saatchi survey found that 29% of respondents had purchased goods or services online, which is less than the 48% figure they cite for the United States market but still indicative of strong electronic commerce potential at the consumer level.

25. Brazil is the leading Internet market in the region, with between 1 million and 1.3 million online users, depending on the survey cited. However, this figure is still low in relation to the overall population (less than 1%). Mexico (370,000 users), Chile (200,000 users), Colombia (120,000 users) and Argentina (170,000 users) also have significant Internet populations, although only Costa Rica's Internet user base (50,000) exceeds 5% of the overall population. The critical mass required to support electronic commerce effectively has therefore not yet been achieved.

26. A recent academic survey of electronic commerce activities in Latin America[4] indicates that Internet service providers (ISPs) are spearheading the push into electronic commerce within the region. The report lists approximately 30 Latin American and Spanish-speaking United States ISPs which are offering Web design, online catalogue and payment capabilities, training and systems integration services -- in addition to basic Internet access. Most of this activity appears to be directed at the business-to-business market at present.

5. Asia and the Pacific

27. The total number of users in the region is currently estimated to be 22 million, with the largest online populations found in Japan (12.1 million), Australia (3.3 million), The Republic of Korea (1.5 million) and China (1.175 million). Internet penetration is greatest in Australia (18% of the population online), followed by New Zealand (15.8%) and Singapore (14.7%). About 9.6% of Japan's citizens are online, although the country leads in the number of Internet hosts (1.4 million), followed distantly by Australia (750,000)[5].

28. IDC Research recently studied the top 1,000 companies in the region and found that 75% of them now had corporate World Wide Web sites. This percentage has more than doubled in the past year and now approaches their estimate for the United States market, according to which 81% of United States companies with over 100 employees have a corporate World Wide Web site.

29. IDC also predicts that electronic commerce revenues will reach the following levels by 2001 in the following Asian countries economies they analysed:

---

[4] Charles Davis, Electronic Commerce in Spanish-Speaking Latin America: Actors, Issues and Challenges; Charles Davis; University of New Brunswick, Canada, 1998.

[5] See Annex VI.

Table 3. Electronic commerce - projected revenues in 2001

Country	EC Revenues (US$ Million)
Malaysia	1,000
Singapore	800
Thailand	200
Indonesia	<200
Philippines	<200

Source : IDC Research, 1997

6. United States and Canada

30. The recently released Nielsen/CommerceNet survey of Internet usage in the United states and Canada shows there were over 79 million Internet users (16 or older) as of June 1998. This represents an increase of 36% from the previous survey conducted in September 1997 and an average increase of 2.5% per month since the beginning of 1997. The number of individuals actually purchasing goods and services on the Internet also increased by 37% to around 20 million, with a further 28 million using the Internet to check prices and compare products.

31. A recent survey of small businesses in the United States found that 37% of them (i.e. some 2.6 million enterprises) now conduct business online. Another 1 million small businesses were likely to come online in 1998. The Small Business Internet Survey found that 80% of small businesses that go online seek information on business products and services, 65% use e-mail daily, 84% send e-mail to customers and 38% purchase business products and services online. A recent IBM survey of 1,000 small businesses found that 67% had Internet access and 24% operated a World Wide Web site. The United States has thus achieved the critical mass necessary to support a robust electronic commerce industry.

C. Business sector perspectives

32. Electronic commerce is already having a profound effect on organizations in many economic sectors and will impact each of the four major directions of commercial activity: including (1) business-to-business; (2) business-to-consumer; (3) business-to-government; and (4) consumer-to-government. The following discussion addresses the first three of these channels, the fourth being beyond the scope of this paper.

1. Business-to-business electronic commerce: from EDI to WWW

33. As previously noted, electronic commerce channels have been utilized for many years, mainly by large corporations and Governments, to facilitate commercial transactions. However, most small and medium-sized firms found the costs of implementing EDI-based applications using private VANs to be prohibitively high, except in those cases where the purchaser (e.g. government

or large manufacturer) dictated that this channel be utilized. In some cases, particularly United States Government procurement, many VANs realized significant revenues from translating EDI messages into a fax or paper format.

34. The advantage of these networks, however, is that they were specifically established to support the supply chains of major manufacturers and thus enjoyed a captive base of ongoing business from these large purchasers. Thus, there was a natural incentive for suppliers of relevant products, particularly component makers or contract manufacturers, to subscribe to VANs in order to receive procurement notices from their large industrial customers.

35. It was not only in the United States that these EDI-based supply chain networks had significant operations; a 1995 World Bank study estimated that Europe had around 30,000 EDI users, about 10-15% of which used EDI to facilitate international trade transactions. Asia, and particularly Japan, the Republic of Korea and Singapore, also has significant levels of EDI activity, although many companies use private data formats instead of the standardized UN-EDIFACT messages. The use of trade opportunity networks, such as the Electronic Trading Opportunities (ETO) system of the United Nations Trade Point Programme, also had its beginnings in value added networks.

36. The proliferation of Internet connectivity worldwide has resulted in a migration of these private network-based commerce applications to this new medium, and a rapid growth in the number of companies utilizing trade opportunity and supply chain networks to obtain new business. Most of these applications were re-engineered so that users only needed a standard Web browser to access information or transact business.

37. For example, today there are a number of trade opportunity networks operating on the World Wide Web that are affiliated with international organizations and associations, including:

- The UNTPDC's ETO System, which is arguably the largest in terms of message volume. Over 10,000 organizations worldwide receive ETOs via e-mail.
- World Trade Centers Association WTCA On-line (NETWORK service's successor)
- The TIPS Network, which was initially established by the UNDP.The Global Business Exchange, which is sponsored by a consortium which includes the International Bureau of Chambers of Commerce.

38. In addition, there are more than 100 World Wide Web or e-mail based trade lead services operated by private sector companies as well as trade promotion agencies worldwide. Many online trade information services, such as those operated by Trade Point USA and Trade Point Finland, offer other types of free or fee-based trade information, such as market research, company directories and commercial guides, in addition to trade opportunities.

39. With a few exceptions, these trade opportunity networks do not focus on a single sector or set of product categories; the more effective services employ sophisticated search technologies and structured data formats to allow users to identify relevant opportunities quickly. Although widely utilized, particularly in Latin America, trade opportunity systems generally focus on end use products or commodities and thus appeal more to trading houses and distribution firms rather than to industrial purchasers.

40. The EDI-based supply chain networks utilized by larger multinationals have also been expanded to include the Internet. One of the better known initiatives in this area is the Trading Process Network (TPN), operated by GE Information

Services, which has over 40,000 network customers worldwide. Introduced in 1996, TPN allows corporate purchasers to establish secure Internet channels to their main suppliers and to broadcast requests for quotations to potential new suppliers worldwide. The service was initially implemented in GE's Lighting Division and other GE operations, where purchasing lead times were reduced by 50% and costs of procured products by up to 30%. TPN is now being utilized by other multinationals such as Hewlett Packard, Textron Automotive and Chrysler. In addition, over 1,400 SMEs worldwide participate in the service, which reportedly generates over US$ 1 billion in transactions annually. For example, one small Hungarian company, Dellcomix, realizes over 20% of its annual revenues through TPN.

41. In addition to trade opportunity and supply chain networks, many industrial marketing techniques, such as catalogues and mass mailings, have been migrated to the Internet using both World Wide Web and e-mail technologies. Sophisticated new search technologies allow a manufacturer with many thousands of similar but distinct products, such as the electronic components producer AMP, to establish online catalogues through which potential customers can quickly locate the specific configuration they are seeking. A US-based company with strong Egyptian roots, Saqqara Systems, developed the AMP application and is a leader in the electronic catalogue market.

42. Several technology companies have developed sophisticated World Wide Web-based ordering systems which allow customers to specify online the exact configuration of the end product, which is then be made to order and shipped to them. Dell Computers sells over US$ 6 million of computers per day through its WWW site, while Cisco Systems now accepts online orders totalling over US$ 20 million per day.

43. Greater efficiency in the consummation of international trade transactions, one of the key objectives of UNCTAD's Trade Efficiency Initiative, is improving as a result of advances in electronic commerce, but there is still much work to be done in this area by Governments and the international trade community. Differences between nations in terms of commercial laws and regulations, particularly regarding the legal validity of electronic documents and digital signatures, have impeded efforts to dematerialize even a few of the many documents involved in an international trade transaction[9].

2. Business-to-consumer electronic commerce: global shopping

44. The growth of retail commerce on the Internet in many developed economies is an outgrowth of the boom in sales from mail-order catalogues which began in the 1970s and 1980s. Many of these catalogue retailers, as well as television shopping channels (e.g., QVC), gravitated naturally to the World Wide Web, as they typically sold products which could be delivered by mail or provided over the Internet (e.g. software). In addition, a number of new ventures, such as Virtual Vineyards, Auto-by-Tel and CD-NOW, took advantage of the ability to provide detailed information on specific categories of products -- or comparison shopping services -- to their customers. Many of these vendors, such as Amazon.com and 1-800-Flowers, have also developed the capability to service

---

[9] Thirteen countries will be involved in the Bolero Launch Program, including Belgium, Brazil, France, Germany, Hong Kong (China), Italy, Japan, Norway, Singapore, Spain, Taiwan Province of China, United Kingdom and the United States. The market sectors involved will include bulk agricultural commodities, chemicals, automotive products, garments, toys, household goods, crude oil, computer products and processed foodstuffs.

foreign customers and offer information in foreign languages.

45. The scope of international retail opportunities depends largely upon the products being offered, product delivery considerations, and the investment required to "localize" the World Wide Web site for foreign customers.

3. Business-to-government electronic commerce: leading by example

46. Governments at the national, regional and even municipal level are utilizing electronic commerce channels to increase the efficiency of their operations and improve the level of service offered to their constituents. A major area of interest for businesses is the increased use by governments of the Internet and VANs to disseminate procurement opportunities and receive quotations from vendors interested in providing goods and services.

47. Traditionally, procurement opportunities were either sent to a short list of pre-qualified vendors or were advertised in newspapers or government publications. In the 1980s and early 1990s some more innovative government agencies began to utilize dial-up bulletin board services (BBS) to provide online access to current procurement requests. However this approach required the vendor to purchase and implement compatible communications software in order to view this information. Other agencies, most notably the US Department of Defense, needed to reach a national or international audience with thousands of procurement requests. As a result, these organizations began to utilize commercial VANs to distribute procurement information to potential vendors. This solution also required suppliers to subscribe to a network services provider and use specialized communications capabilities, as well as EDI translation software, if they wished to download the procurement information to their internal order entry and business systems.

48. With the advent of the World Wide Web, thousands of government agencies have established Web sites to facilitate communications with their suppliers. Examples of Governments which are currently using the Internet in their procurement activities include:

- Australia: Transigo (www.transigo.net.au/wci/home)
- Canada: MERX (www.merx.cebra.com/)
- European Union: Tenders Electronic Daily (www2.echo.lu/echo/databases/ted/en/ted)
- Hong Kong, China: Government Supplies Department (www.info.gov.hk/gsd/tender.htm)
- Poland: Office of Public Procurement (www.uzp.gov.pl/a_index.html)
- United States: General Services Administration (www.fss.gsa.gov/index.html)

49. As a result of the World Trade Organization Agreement to increase cross-border competition in major government procurement, many government agencies are utilizing the Internet to advertise significant procurements worldwide. In addition, many multilateral development agencies are making increased use of the Internet in their purchasing activities. For example, the United Nations will shortly be launching Development Business Online, which will feature procurement opportunities from the major multilateral development banks and other international development agencies.

50. The involvement of government agencies in purchasing through electronic channels can have a catalytic benefit on the local electronic commerce environment in a given country. Governments, even in heavily market-oriented

economies, are usually among the largest buyers of goods and services from the private sector. The participation of Governments as online purchasers can therefore help to draw their suppliers into electronic commerce. This is particularly true in the case of smaller vendors, which may otherwise find it difficult to justify the necessary technological investment without a broader base of customers who wish to purchase through electronic channels.

51. Building the critical mass of online buyers to support the development of a healthy electronic commerce community requires the active involvement of government, not only as a regulator but also as a commercial participant -- and ideally as a source of training and technical assistance resources to nascent electronic commerce firms. This was the case in the United States, where thousands of companies were using dial-up and network-based data communications technologies to sell to government long before the Internet emerged as the electronic commerce channel of choice, and it is also what happened in a number of other countries.

Conclusions

52. From the point of view of developing countries, access to participation in electronic commerce raises several types of policy issues[11], including the following:

(a) Offering the proper regulatory, fiscal and economic framework to modify the current cost structure of Internet usage: stimulating awareness among potential users (especially small and medium-sized enterprises), enhancing competition among Internet service providers (ISPs), attracting competence from the more experienced players, and fostering capacity building (including training) of local players should be considered as appropriate policy objectives in this context;

(b) Granting priority to the provision of those electronic-based products and services which are most likely to enhance local trade efficiency (e.g in the area of procurement, customs operations, or payments) or competitiveness (e.g. through the identification of niches, or global dissemination of electronic catalogues or ETOs); this would also allow national economies to better link participation in electronic commerce with national trade policy objectives.

---

[11] The directions indicated above will need to be considered in the broader context of on-going international discussions on electronic commerce, in particular in the WTO context; recent proposals made for a 'Global Framework for Electronic Commerce' also need to be considered from the point of view of their possible implications on trade and development. This is the purpose of document TD/B/COM.3/17.

Annex I
Internet usage in selected European countries

Country	Date of estimate	Number of Internet users	% of total pop.	Source	Internet hosts*
Austria	8/98	442,000	5.5%	IDC Research	132,202
Belgium	8/98	558,000	5.5%	IDC Research	153,760
Czech Rep.	9/97	200,000	1.9%	Virtual Info Park	65,672
Denmark	5/98	800,000	16.0%	Politiken	190,293
Estonia	7/97	8,300	1.8%	Baltic Media Facts	18,948
Finland	5/98	1,790,000	35.0%	Gallup Media	513,527
France	12/97	3,800,000	6.5%	NOP Research	431,045
Germany	3/98	6,100,000	7.3%	NOP Research	1,154,340
Greece	1/98	111,000	1.0%	IDC Research	40,061
Hungary	5/98	200,000	2.0%	ISYS Hungary Kft(Est.)	73,987
Iceland	2/98	121,600	45.0%	Gallup	20,678
Ireland	1/98	145,000	4.2%	IDC Research	44,840
Italy	1/98	1,380,000	2.2%	IDC Research	320,725
Netherlands	4/98	1,390,000	8.3%	Nipo	514,660
Norway	11/97	1,400,000	32.5%	MMI Internet Barometer 97	312,441
Poland	11/97	700,000	1.8%	Nua Estimates	98,798
Portugal	1/98	188,000	1.9%	IDC Research	45,113
Russian Federation	7/98	1,000,000	0.7%	Russian N.P. Center for Internet Tech.	130,422
Slovakia	11/97	190,000	5.0%	Net Projekt	14,154
Spain	6/98	1,850,000	4.7%	AIMC	243,436
Sweden	5/98	2,400,000	27.0%	Relevant Knowledge	380,634
Switzerland	6/98	870,000	9.4%	Swisscom	205,593
United Kingdom	12/97	7,200,000	12.8%	NOP Research	1,190,663

Compiled by Nua - How Many Online?; Network Wizards.

* Includes only hosts using country top level domain (TLD) names; hosts using ".com", ".net", etc. not included. The same remark apply to annexes II, IV, V and VI.

Annex II
Analysis of African Internet Connectivity

Country	N° of ISPs	N° Internet hosts*	N° of Internet users	Pop. (mns)	Internet users pop.
Algeria	1	1	1,500	29.81	97,000
Angola	2	2	1,000	11.26	1,167
Benin	2	2	2,000	5.66	2,750
Botswana	2	574	5,000	1.41	2,800
Burkina Faso	1	21	1,000	10.42	10,857
Burundi	2	2	500	6.10	84,200
Cameroon	4	5	2,000	13.83	6,750
Central Afric. Rep.	1	1	200	3.62	18,200
Chad	1	1	500	5.60	123,000
Congo, Dem. Rep.	1	8	1,000	44.24	440,000
Côte d'Ivoire	3	285	12,000	14.90	14,800
Djibouti	1	1	400	0.43	1,075
Egypt	28	1,241	30,000	66.05	1,035
Equatorial Guinea	1	2	200	0.42	2,500
Eritrea	1	1	300	3.66	12,333
Ethiopia	4	28	3,000	57.80	20,667
Gabon	2	2	1,000	1.22	1,200
Gambia	1	1	500	1.44	6,600
Ghana	3	241	4,500	17.70	1,256
Guinea	1	1	300	6.80	22,700
Guinea-Bissau	2	22	500	1.19	5,500
Ivory Coast	1	265	1,000	14.75	14,800
Kenya	10	837	5,000	29.54	5,830
Lesotho	1	17	500	2.04	20,300
Madagascar	5	19	1,000	13.48	13,433
Malawi	1	1	400	9.72	24,250
Mali	2	1	400	9.41	23,500
Mauritania	2	22	1,000	2.30	23,000
Mauritius	6	310	260	1.12	1,146
Morocco	3	173	5,000	28.36	4,867
Mozambique	2	83	1,500	16.42	8,357
Namibia	6	862	2,000	1.70	950
Niger	2	2	200	8.70	44,500
Nigeria	6	91	1,000	120.20	101,200
Rwanda	1	0	100	8.60	86,000
Senegal	3	189	2,500	9.00	3,600
Seychelles	1	7	1,000	0.8	80
Sierra Leone	1	0	50	4.80	96,000
South Africa	58	14,877	600,000	39.00	65
Sudan	1	0	400	30.00	150,000
Swaziland	3	247	900	1.17	1,278
Tanzania	14	137	2,000	25.12	12,560
Togo	2	82	300	4.4	14,667
Tunisia	4	87	3,000	9.0	2,933
Uganda	4	41	2,000	20.40	10,200
Zambia	3	236	2,000	9.50	4,750
Zimbabwe	17	836	12,000	11.10	1,110
Total or average	256	48,272	884,185	719.49	1,050

Source: Mike Jensen, Network Wizards

Annex III

Annual cost for internet access in selected african countries

Country	Cost/year $	Country	Cost/year $
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

Source: Mike Jensen

Note: Costs based on five hours per month dial-up access, including cost of local call to ISP.

Annex IV

Internet Usage in selected middle eastern countries

Country	Date of estimate	Internet users	% of pop.	Source	Hosts*
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	379
Egypt	[illegible]	[illegible]	[illegible]	[illegible]	2,043
Israel	[illegible]	[illegible]	[illegible]	Internet Israel	87,842
Jordan	[illegible]	[illegible]	[illegible]	[illegible]	360
Kuwait	[illegible]	[illegible]	[illegible]	[illegible]	3,347
Lebanon	[illegible]	[illegible]	[illegible]	[illegible]	1,400
Oman	[illegible]	[illegible]	[illegible]	[illegible]	666
Qatar	[illegible]	[illegible]	[illegible]	[illegible]	23
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14,513

Compiled by Nua - How Many Online?; Network Wizards

Annex V

Internet usage in Latin America and the Caribbean

Country	Date of estimate	Internet users	% of pop.	Source	N° of hosts*
Argentina	6/97	370,000	.1*	CommerceNet	87,934
Bolivia	6/97	4,000	.1*	ITU/Siemens	306
Brazil	6/97	1,100,000	.7*	ITU Brazil	163,490
Chile	6/97	200,000	1.4*	CommerceNet	22,888
Colombia	6/97	120,000	.3*	CommerceNet	11,864
Costa Rica	6/97	50,000	1.4*	CommerceNet	2,941
Ecuador	12/97	5,000	.04*	ITU/Siemens	1,227
Mexico	6/97	370,000	.4*	CommerceNet	83,944
Paraguay	12/97	1,500	.03*	ITU/Siemens	455
Peru	12/97	31,000	.1*	CommerceNet	3,783
Uruguay	12/97	9,000	.3*	ITU/Siemens	16,141
Venezuela	6/97	35,000	.2*	CommerceNet	8,424

Compiled by Nua - How Many Online?; Network Wizards

Annex VI

Internet usage in the Asia/Pacific Region

Country or territory	Date	Internet users	% of pop.	Source	Internet hosts*
Australia	6/98	3,280,000	18.0*	Morgan Research	750,327
Bangladesh	6/97	7,000	.005*	Nando Techserver	N/A
China	6/98	1,175,000	.10*	Nando Times	205,593
Hong Kong, China	6/98	980,000	13.9*	A.C. Nielsen	72,232
India	12/97	80,000	.01*	Reuters	10,476
Indonesia	6/98	70,000	.3*	Indonesian IT	10,692
Japan	12/98	12,100,000	9.6*	Nikkei, P	1,452,200
Korea, Rep. of	6/98	1,300,000	2.9*	AsiaBiz Tech	174,800
Malaysia	12/98	800,000	3.7*	Jaring Network	40,758
New Zealand	12/98	560,000	15.9*	A.C. Nielsen McNair	177,783
Philippines	6/97	150,000	.01*	Paul Budde Com.	7,602
Singapore	6/97	500,000	14.7*	A.C. Nielsen	59,463
Taiwan Prov. of China	12/98	480,000	2.3*	IDC Research	103,661
Thailand	12/98	131,000	0.23*	IDC Research	25,459
Viet Nam	6/98	6,000	0.008*	Nikkei, BP/AsiaBiz	25

Compiled by Nua - How Many Online?; Network Wizards

UNITED
NATIONS

TD

United Nations Conference
on Trade and Development

Distr.
GENERAL

TD/B/COM.3/17
22 September 1998

Original: ENGLISH

TRADE AND DEVELOPMENT BOARD
Commission on Enterprise, Business
Facilitation and Development
Third session
Geneva, 23 November 1998
Item 4 of the provisional agenda

IMPLICATIONS FOR TRADE AND DEVELOPMENT OF RECENT PROPOSALS TO SET UP A GLOBAL FRAMEWORK FOR ELECTRONIC COMMERCE

Report by the UNCTAD secretariat

Executive Summary

This document examines some of the elements presented in recent proposals by the European Union, Japan, the United States and the OECD secretariat, for a global framework for electronic commerce and their potential consequences for trade and development. In order to facilitate the identification of common themes in the proposals, the issues raised by them are considered under the following headings: financial issues, (including fiscal aspects), legal issues (including intellectual property, security and market access aspects) and access for small and medium sized enterprises.

The document concentrates on identifying the opportunities for developing countries (and their enterprises) to benefit from the proposals if they are implemented. Priorities are identified which could enable such countries to maximize the benefits and limit the risks associated with the proposals. The main findings are: **(1)** further evaluation is needed of the potential impact of a duty-free Internet trade zone on trade and development; **(2)** developing countries should be offered greater support in the area of capacity-building and training for electronic commerce; and **(3)** government policies regarding the provision of a supportive legal and regulatory framework for telecommunications and information services will have a direct impact on how measures taken at the international level will affect their own trade performance and the competitiveness of their enterprises in electronic markets.

GE.98-51737

Background[1]

1. Trade among nations is on the threshold of a fundamental transformation as a result of advances in information and telecommunications technology. The ability of the Internet to bring together distant parts of the world in a global electronic market place and information exchange offers far-reaching benefits to developing and industrialized economies alike.

2. Today, there are an estimated 148 million Internet users, with double digit growth rates in many emerging economies. There are some 37 million Internet hosts worldwide, facilitating a dramatic increase in the volume of trade and economic information available online. Connectivity has significantly improved in many parts of the developing world - for example, nearly every capital city in Africa enjoys some level of Internet access today. However, there are still significant disparities in the level of Internet penetration across regions, which can have profound implications on an individual country's ability to participate in the global electronic market place.[2]

3. The overall level of electronic commerce, or business transactions conducted via the Internet and private commercial networks, was estimated at US$ 8 to 9 billion in 1997. Researchers have forecast that this figure could rise to as much as US$ 400 billion by 2002, as businesses and consumers throughout the world expand their online commercial activities. This dramatic growth in electronic commerce is being driven by the marketing and cost reduction benefits that many businesses are realizing through this new medium.

4. To help ensure that the benefits of the Internet and online commerce continue to expand to all parts of the global economy, a number of Governments and intergovernmental organizations have put forward proposals to create a global framework for electronic commerce. Although there are differences between the various strategies presented, a consensus is emerging in the United States, Europe and Japan that the private sector should take the lead role in developing this global framework. International coordination in the adaptation of existing commercial laws and regulations will be necessary in order to provide a consistent and transparent legal environment for electronic commerce. However, self-regulation by the private sector is being encouraged as an alternative to increased government regulation in areas such as standard setting, information security and content management.

5. An aspect that is not addressed in the proposals is the need to ensure that the development dimension is an integral and positive part of the electronic commerce debate at an early stage. For electronic commerce to become a truly global instrument of growth and prosperity, inequalities in access, connectivity, cost, financial and human resources need to be properly identified and swiftly addressed by the international community. This document is a first step in that direction.

---

[1] This document is being published simultaneously on the UNCTAD website (http://www.unctad.org). Many of the references to institutions, enterprises, documents and so on are identified as "hyperlinks" in the electronic version of the document, so that the user can click on the highlighted text to go directly to the relevant website.

[2] This topic is addressed in document TD/B/COM.3/16 ("Policy issues relating to access to participation in electronic commerce")

Section I - MAIN ISSUES

A. Introduction: four converging proposals

6. A number of individual Governments and intergovernmental organizations have taken steps to address the policy issues relating to the establishment of a global framework for electronic commerce. The following analysis focuses on proposals made by the United States, the European Union, Japan and the OECD. The first three have put forward policy proposals concerning electronic commerce in areas such as customs and taxation, development of the legal framework, and market access issues. The OECD is conducting extensive research into a number of policy issues relating to electronic commerce and has published a number of policy guidelines.[3]

7. It should be noted that the various proposals were not developed under common terms of reference and therefore do not address all the same issues at the same level of detail. Nevertheless, in general a strong consensus emerges from the four proposals that the private sector should take the lead role in the development of the Internet and electronic commerce. Also, self-regulation by industry should be the norm unless a clear need for government action or international agreements is identified. It is generally recognized that there is a need for a simple, transparent and predictable legal environment for electronic commerce on a national and international level and that Governments should avoid placing undue restrictions on electronic commerce in order to avoid competitive distortions.

8. According to these proposals, cooperation among Governments, using established venues for negotiation such as OECD, WTO, WIPO and UNCITRAL, should be actively pursued in order to ensure participation by Governments in establishing the necessary agreements and model legislation to buttress the overall framework. The private sector should have a say in how the present legal environment should be adapted to meet the new imperatives posed by electronic commerce. Changes to the legal and institutional framework relating to electronic commerce should be technology-neutral to avoid discrimination and encourage inter-operability.

9. The various policy papers published by the four actors mentioned above set out a number of financial proposals (e.g. on customs, taxation, electronic payments), legal proposals (e.g. on a commercial code, intellectual property, copyright and trademark, privacy and security) and market access proposals (e.g. on telecommunications infrastructure, information technology, content and technical standards). They also address issues related to human resources[4] and small and medium-sized enterprises (SMEs).

---

[3] Other organizations which have weighed in on particular issues or on the regional dimensions of electronic commerce include the World Trade Organization (WTO), the World Intellectual property (WIPO), the United Nations Economic Commission for Europe (UNECE-CEFACT), the International Trade Center (ITC UNCTAD/WTO), the International Telecommunication Union (ITU), the International Chamber of Commerce (ICC), the United Nations Commission on International Trade Law (UNCITRAL), the Inter-American Development Bank (IDB), the International Bank for Reconstruction and Development (IBRD), the Asia-Pacific Economic Cooperation Forum (APEC), the G-7, the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the International Organization for Standardization (ISO), among others.

[4] This aspect is addressed in document TD/B/COM.3/EM.6/2 "Training in the area of electronic commerce: needs and possibilities"

B. Financial issues

1. Customs and taxation in electronic commerce

10. Across the four proposals, there is agreement that the present tariff free environment for goods and services delivered by the Internet and other electronic channels should be perpetuated, but this does not extend to physical goods purchased through the Internet and delivered by traditional methods, where existing tariff rules should continue to apply.[5]

11. The taxation of electronic commerce, in "virtual goods", such as information and services, and physical goods is a complex issue. The position of the United States is that no new taxes should be imposed on electronic commerce, and that taxing jurisdictions should coordinate their activities to ensure that taxation systems are simple to administer and do not hinder or distort commerce.

12. The European Union has traditionally levied VAT on virtual as well as physical goods but is evaluating the definition of the current tax systems (both direct and indirect) within member States on issues of definition, control and enforceability. All four actors share the position that fairness in the taxation of electronic goods as compared with that of physical goods (i.e. "tax neutrality") is essential, and that the OECD (and the European Union for European countries) should be a key forum for the discussion of policy issues relating to international taxation. The OECD has already begun a programme of policy research on taxation issues in electronic commerce.

2. Implications of new electronic payment methods

13. Electronic payment is an area of emerging technology that has potentially significant ramifications in the areas of monetary policy and global banking. There is a recognized need to monitor closely developments in this area, although none of the four actors has proposed any increase in government regulation as yet. However, the United States and others have recognized that future action may be necessary to ensure the long term security and soundness of electronic payment and international financial systems.[6]

C. Legal Issues[7]

1. Development of a commercial code for electronic commerce

14. All four actors recognize the need to adapt the current framework of commercial codes and legislation governing commercial transactions to address the complexities introduced by international electronic commerce. There are numerous efforts under way to establish the legal validity of electronic

---

[5] This point has been reflected in the WTO Ministerial Declaration of May 1998 in which Ministers agreed that, at least until the next WTO Ministerial Conference of 1999, members would "continue the current practice of not imposing customs duties on electronic transmissions"

[6] Some of these payment technologies are further described in Section II A below.

[7] A recent UNCTAD document entitled "Electronic commerce: Legal considerations" (UNCTAD/SDTE/BFB/1) has identified the main issues surrounding the legal aspects of electronic commerce. Hence this section will limit itself to the legal issues which are addressed in the four proposals mentioned.

documents and the acceptability of digital signatures and other authentication procedures used in commercial transactions, although legislation is still pending in many countries. Japan and the United States stress the need to ensure the admissibility of electronic data in dispute resolution, which is also being addressed in the alternative dispute settlement systems of the ICC. The European Union emphasizes that there should be no regulation for regulation's sake, that regulations should be based on all Single Market freedoms, and that regulations must take account of business realities and must achieve their objectives effectively and efficiently. The European Union also recently adopted a directive on contracts negotiated at a distance which will address electronic commerce transactions.

15. The UNCITRAL Model Law on Electronic Commerce is cited as an example of international cooperation in establishing a common legal framework which should be supported and pursued in other areas as well. Also, the ICC is developing a database of electronic commerce terminology which can be incorporated into commercial contracts used in electronic commerce.

2. Intellectual property protection

16. The two recent international treaties concluded under WIPO (the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty) have received broad support, and the United States, the European Union and Japan have pledged to pursue their prompt ratification. The implementation of the Agreement on Trade-Related Aspects of Intellectual Property Rights (the TRIPS Agreement) is also encouraged, particularly by the United States and the EU. In addition, the European Union is in favour of concluding another WIPO treaty on the legal protection of the substantial investment made in databases. Japan recognizes the difficulty of distinguishing between the private use and the commercial use of digital content and the need to balance intellectual property protections against the "right to knowledge" of individuals, as well as the need to avoid the obstruction of content distribution by excessive regulation.

3. Trademarks and domain names

17. Although the Domain Name System (DNS) of assigning website names has so far been dominated by the United States, as the pioneer of the Internet, it is broadly recognized that a new market-driven governance arrangement with broader international participation is essential. As domain names are not yet fully protected under most trademark regimes, there is scope for misuse by external parties which can dilute the value of the trademark. The United States, in particular, is supporting the development of international agreements extending full trademark protection to domain names.

4. Privacy on the Internet

18. The United States has produced the following two sets of principles on the privacy of personal information and activities relating to electronic commerce:

(a) Consumers should expect that data-gatherers will:
  (i) Inform consumers what information they are collecting and how the intend to use such data; and
  (ii) Provide consumers with a meaningful way to limit use and re-use of personal information

(b) Personal information acquired, disclosed and used online should:
  (i) Respect the individual's right to privacy;
  (ii) Not be altered or destroyed; and
  (iii) Be accurate, timely, complete and relevant for the purposes for which it is provided and used.

19. The United States is currently supporting private-sector efforts to implement self-regulatory privacy regimes, but recognizes that it may have to intervene in certain areas (e.g. child protection) if self-regulatory measures are not sufficiently rigorous.

20. Japan has also endorsed the development of a private-sector-driven regime for privacy protection, although it recognizes that legislative solutions may be necessary in certain instances. The Japanese Government has also published guidelines for the protection of personal data and has undertaken initiatives to educate online users on privacy issues, encourage voluntary measures by businesses to protect personal data and promote technologies which enhance privacy protection online. Japan also endorses international cooperation to ensure worldwide consistency in privacy protection.

21. The European Union has taken a more hands-on approach to privacy protection and has adopted a number of directives on the processing and transmission of personal data. It will soon implement a directive which prohibits the transfer of personal data to countries that, in its view, do not extend adequate privacy protection to European Union citizens. This directive is raising some concern among the European Union's trading partners, particularly the United States.

22. The OECD publication *Guidelines on the Protection of Privacy and Transborder Flows of Personal Data* recommends that cross-border flows of personal information should not be restricted, except when the destination country does not substantially observe the guidelines or where the re-export of such data would circumvent domestic privacy legislation.

5. Security on the Internet

23. Efforts are under way in a number of countries to provide a framework for the development of market-based standards, public key management services and key-recoverable encryption products. There is broad agreement that the online environment should allow for a number of security-related technologies (e.g. encryption, authentication, password controls, firewalls), supported by trustworthy, market-driven key and security management infrastructures. The OECD has also published guidelines on cryptography and security of information systems addressing the major security and key management issues. There is agreement that legitimate law enforcement access to encrypted data should be permitted. The United States Government, however, continues to oppose the export of strong encryption technologies on law enforcement and national security grounds.

D. Market access issues

1. Telecommunications infrastructure and information technology policies

24. The United States and European Union policy papers both recognize the importance of liberalized telecommunications policies at the national level to the development of an advanced, high-capacity global information network. In particular, the United States position sets out four principles which it believes should be the foundation for government policy:

(a) Private-sector investment should be encouraged by privatizing Government-controlled telecommunication companies;

(b) Competition should be promoted and preserved by introducing competition to monopolistic phone markets and ensuring interconnection at fair prices;

(c) Open access to networks should be guaranteed on a non-discriminatory basis;

(d) Pro-competitive and flexible regulation which keeps pace with technological developments should be implemented via an independent regulator.

25. The four proposals stress that the effective implementation of the WTO Agreement on Basic Telecommunications Services and the Agreement on Information Technology Agreement will have a beneficial effect on the development of the technology infrastructure underlying the global information network. In addition, the United States and the European Union also support the streamlining of product certification procedures through Mutual Reduction Agreements (MRA) that allow for the international recognition of certification awarded by national standards laboratories.

2. Regulation of content on the Internet

26. Across the four sets of positions there is a strong consensus that rules on responsibility for content should be based on a set of common principles so as to ensure a level playing field. The United States and the European Union positions both endorse the view that intermediaries such as network operators and Internet service providers should not be subject to unreasonable or discriminatory rules concerning the content they host or transmit on behalf of their customers. Japan recognizes that some content is either illegal or not acceptable to society but generally discourages government regulation of content. However, the Japanese Government is developing the Platform for Internet Content Selection (PICS), which allows the user to set the desired filtering parameters, in cooperation with a private-sector consortium.

27. The United States has expressed concern over the regulation of advertising on the Internet. Depending upon the country, advertising is subject to a wide variety of restrictions and requirements on support for advertising claims. Some Governments regulate advertising, while others rely on industry self-regulation. The United States Government recommends a "country-of-origin" approach to the regulation of Internet advertising in order to avoid regulatory overlap and possible trade barriers.

28. The United States supports industry self-regulation of content, including the development of rating systems and encourages the development of filtering technologies. It is in favour of international cooperation in the areas of consumer protection and of coordination of policies on content which address the cultural, social and political differences between nations.

3. Development of technical standards

29. In these proposals, there is broad agreement that the private sector should take the lead in the development of open technical standards, in cooperation with Governments and international standards organizations. There is common recognition that technological and commercial inter-operability will be vital in the future development of the global information network. However, it is also true that many Governments themselves mandate standards, which could cause a country to fall behind technologically and result in non-tariff barriers to trade.

4. Access for small and medium-sized enterprises

30. The European Union, Japan and the United States have all been aggressively pursuing the development of programmes to ensure that SMEs can participate fully in the global information network. The programmes include human resource development initiatives to address the skills gap that many SMEs experience in implementing technology within their businesses. The European Union is encouraging the development of a European venture capital industry and has instituted a number of programmes to disseminate information, encourage the development of standards and provide training to SMEs. In addition, the G-7 countries are cooperating within the framework of the "G-7 Global Marketplace for SMEs" to promote policy dialogue with the business community and spotlight promising "test-bed" projects which can provide products and services to support the participation of SMEs in global electronic commerce.

SECTION II - IMPLICATIONS FOR TRADE AND DEVELOPMENT

A. Implications for companies: opportunities and barriers

31. The business opportunities arising from electronic commerce vary significantly from sector to sector - as well as from country to country - depending on the composition of trade, the population of Internet users in the local market place and other factors. In addition, the use of electronic commerce offers a number of non-revenue benefits such as increased efficiency and reduced operating costs.

32. In taking decisions on the extent of their investment in electronic commerce for both domestic and international trading activities, managers should take into account a number of factors, including the following:

(a) The target market and geographical focus of the business;
(b) The products and services currently offered, and those to be offered via electronic channels;
(c) The suitability of Internet-based trade opportunity and supply chain systems as a business development tool;
(d) The availability of the requisite technical knowledge and expertise;
(e) The availability and cost of Internet access/hosting services;
(f) The availability and cost of information on both product markets and counterparties;
(g) The availability of financing, risk management and payment alternatives.

1. Target market and geographical focus of the business

33. The vast majority of SMEs today focus primarily on their local markets. With the possible exception of trading houses, most exporters also serve a significant domestic market in addition to their foreign customers. Expanding into new foreign markets through electronic channels generally requires substantial changes in a company's entire approach to doing business in terms of how it markets its products, how it develops and manages customer relationships, delivers products and provides customer support in the electronic market place.

34. The dilemma for SMEs is that they generally do not have the resources to cope with changes to all aspects of their business at once. Many therefore approach the Internet in an experimental fashion or initially focus on the enhanced data-gathering and communications opportunities available to them to carry out market research or exchange information with customers and business partners.

35. The International Finance Corporation (IFC) recently surveyed 113 firms in 16 developing countries regarding the extent to which they utilized the Internet in their business activities.[*] Over 75 per cent of the respondents either had Internet access or were in the process of having it installed. The most positive features of the Internet that were cited included improved access to business information (most often marketing and technical data) and the enhanced connectivity provided by e-mail, which 89 per cent of respondents were using to communicate with customers. Forty-five per cent of the industrial companies and 100 per cent of the financial firms responding maintained a home

---

[*] See J. Daly and R. Miller, "Corporations' use of the Internet in developing countries"; IFC Discussion Paper 35 (1998).

page on the web, although most of the home pages appeared to contain only company and product descriptions and were rarely "commerce-enabled". An Internet survey of small business in the United States[9] found that 19 per cent of small businesses which had online capabilities utilized e-mail to solicit customers and that 45 per cent intended to do so in the coming year. A survey of SMEs in the United Kingdom also indicated that e-mail was a critical tool for them.[10] Thus, many SMEs in developing countries begin their foray into electronic commerce by utilizing e-mail or a simple website as marketing tools, before developing their Internet commerce capabilities if this seems justified by the perceived benefits. This is also the sequence followed by UNCTAD's Trade Point programme, which has built its initial growth around e-mail (ETOs).

2. Products and services offered, via electronic channels

36. Companies in developed economies already have significant experience in determining the viability of selling specific products and services through websites and other electronic channels. Electronic commerce is particularly well suited to products and services where information adds significant value to the products or services being purchased. Books, computers, travel services, software and electronic goods are among the products which have been successfully sold through the Internet, particularly when related information (e.g. book reviews or information on product availability) is also presented.

37. Commodity products are generally not considered suitable for direct sale through the Internet, except through auction, barter or trade lead systems which enable buyers to collect competing bids. A Panos briefing[11] cited the example of a California based company called Earth MarketPlace, which utilized a website to market organic agricultural products (such as teas, coffees and spices) and crafts sourced directly from producers in developing countries to consumers in the United States. The promoters found that the web was not a suitable channel to use for reaching buyers of these products and discontinued their Internet site in favour of other marketing approaches.

3. Suitability of Internet-based trade opportunity and supply chain systems as a business development tool

38. As noted above, many manufactured or commodity products are not well-suited for direct sale through the Internet due to the limited number of buyers who are likely to access the vendor's website, the customized nature of the product (e.g. parts or machines made to customers' blueprint specifications), the commodity nature of the product (e.g. oil or grains) or other marketing constraints. In these cases, participation in a supply chain network or trade opportunity system may be a viable alternative for marketing products, internationally through electronic channels.

39. One such option is UNCTAD's SEAL (Secure Electronic Authentication Link) initiative, which provides a secure electronic environment where international trading partners can identify and qualify trading counterparties, conclude transactions and arrange for trade-related services.

40. Many firms will continue to sell their products overseas through traditional channels, such as local agents and distributors in the target countries. This is often necessary for industrial or office products which consume supplies or require local-based technical services. These channels may

---

[9] Http://www.cyberdialogue.com/index_4.htm

[10] *Durlacher Quarterly Internet Report*, Q2/98, London, August 1998.

[11] *The Internet and Poverty*, Panos Media Briefing N° 28, April 1998.

also be a cost-effective alternative to direct exporting where there is significant local market potential or a wider distribution capability is required. In these cases, the trade opportunity networks, as well as the company directory services available through the Internet, are useful resources for identifying and qualifying potential agents and distributors in new markets. If suitable marketing resources are available, such as company directories giving e-mail addresses for purchasing departments, a direct marketing strategy utilizing e-mail may be effective.

4. Availability of the requisite technical knowledge and expertise

41. The lack of in-house technical knowledge and expertise has long been recognized as a major barrier for companies, particularly SMEs in developing countries, which are attempting to develop their international trade and electronic commerce capabilities. With only a few exceptions, both industrialized and developing countries are experiencing shortages of skilled workers and managers in most technological disciplines. Part of the problem stems from the sheer speed of advances in technology, which are outstripping the ability of academic institutions in developing countries, and some developed economies, to adapt their curriculum. A survey of Latin American electronic commerce activities found that virtually no universities in the region offer degree programmes which focus on electronic commerce.[12] The survey concluded that much knowledge transfer in the region was taking place through industrial conferences and seminars sponsored by business associations, technical journals, Internet services providers as well as hardware and software vendors.

42. UNCTAD recently convened an expert meeting which focused on human resource capacity-building in the area of electronic commerce[13]. The UNCTAD secretariat has also undertaken initiatives focused on human resource development, in the area of electronic commerce such as TRADEFORTRADE/eTrade courses.

Section II

43. Many Internet services providers in Latin America provide website design and commerce-enabling services in addition to basic Internet access. It is likely that many firms in developing countries, especially SMEs, will need to outsource their website development and management to specialist firms while this skill shortage persists.

5. Availability and costs of Internet access/hosting services

44. The availability of Internet access is improving throughout most of the developing world, as evidenced by the African connectivity analysis presented in Annex II of document TD/B/COM.3/16 and the regional statistics on Internet user populations presented in Annexes I, IV, V, VI of the same document. However, the cost of access remains a significant hurdle, in Africa in particular. Where reasonably priced Internet access is available, companies worldwide are finding e-mail to be a low cost alternative to telephone and fax communications, which helps to explain why e-mail use by SMEs is quite high, as previously noted.

45. Development and maintenance costs for a website vary enormously, depending on its size and complexity. Simple online catalogues can be designed and hosted for under US$ 1,000 a year, although a commerce-enabled site can be significantly more expensive. Some Trade Points are operated by technology-based companies which provide a variety of technical and training services for their clients as well as hosting online product catalogues on their websites.

---

[12] C. Davis, "Electronic commerce in Spanish-speaking Latin America: Actors, issues and challenges" University of New Brunswick, 1998.

[13] See documents TD/B/COM.3/13 and TD/B/COM.3/EM.6/3.

46. The costs of developing and hosting large commerce-enabled websites can run into the hundreds of thousands or millions of dollars. Therefore the size and sophistication of a business website should be balanced against the forecast revenues and return on investment; many large Internet-based retailers, are not expected to turn a profit for their next few years of operations.

6. Availability and cost of information on markets and counterparties

47. One of the primary advantages which SMEs can derive from the Internet is the ability to access a rich variety of business information in a number of key categories. For example, many Trade Points operate websites which provide free or fee-based trade information. In addition, many governments and international agencies involved in trade promotion, such as the United States Commerce Department, Industry Canada, the Japan External Trade Organization and the Organization of American States, provide free access to a great deal of useful information on international markets. Also, many publishers of trade-related information have established websites where their reports can be purchased and downloaded. Some market research companies, such as Euromonitor, will even sell their product market research reports in sections to customers who do not wish to spend thousands of dollars on the full report. The International Trade Centre's website provides hyperlinks to many of these free and fee-based trade information resources.

48. One of the significant challenges in doing business internationally is to determine the creditworthiness of a potential trading partner. Many of the major international credit reporting firms, such as Graydon International and Dun & Bradstreet, now sell credit reports on companies throughout the world via their websites or accept requests for credit checks on specific firms.

49. The cost of certain fee-based information services, particularly in-depth market research reports and credit reports on companies in developing countries, can still pose an obstacle to SMEs. In the long run, however, the ability to easily retrieve useful information on markets and counterparties will help SMEs to better identify their target markets and potential customers, select the appropriate distribution channels, investigate the impact of legal and regulatory requirements in foreign countries on their export activities, and assess the business and credit risks, as well as identify providers of financing, risk management and logistics services.

7. Availability of financing, risk management and payment alternatives

50. The Internet provides firms with a number of benefits in the area of financing, risk management and payment alternatives. First, firms can use the Internet to identify more easily the providers of these services and, in many cases, exchange transactional information online. Also, organizations can commerce-enable their websites to allow their customers to order and pay for products in a secure environment. In addition, initiatives such as Bolero and TradeCard[14] will facilitate the electronic transmission of the trade documents which are normally required before payment can be made.

---

[14] See Box 1.

Dematerializing trade documentation: a few examples

Project Bolero was one of the first initiatives undertaken to dematerialize international trade documentation, has the objective of creating an electronic bill of lading, and eventually electronic versions of other trade documents, that will be accepted throughout the global trade community. This effort began in the early 1990s and has now addressed many of the complex legal, financial and technical issues involved in developing a viable approach to dematerialization. Bolero Operations Ltd., which is a joint venture between S.W.I.F.T. and the Through Transport Club (a mutual insurer), is now preparing for the initial launch of the service in late 1998, which will feature secure messaging services via the Internet and a centralized Title Registry for bills of lading that will eliminate the need for paper documents. Participants in the system must all agree to observe the terms of the Bolero Rule Book, which is a contractual mechanism designed to deal with the above-mentioned differences between national trading regulations.

UNCTAD's SEAL Initiative Represents a major effort to develop a secure online environment for firms engaged in international trade. It is a cross certification system providing secure, private and authenticated electronic communications among nations for expediting import/export transactions.

The World Trade Centers Association's TradeCard service is another initiative to facilitate the electronic exchange of valid trade documents, as well as provide trade financing services. This facility, which operates through GEIS instead of the Internet, enables importers and exporters to exchange orders electronically; prepare, transmit and verify shipping-related documents online in a secure environment; and arrange for an import line of credit which is immediately drawn upon when the completed document set is received by the facility's administrator. Currently TradeCard is being marketed to importers in the United States, Canada and France, although it is expected to expand to include the Netherlands, United Kingdom and Latin America in the near future. This service also relies on contractual agreements regarding the validity of electronic documents rather than national commercial regulations.

Asian Sources a specialized publisher of magazines for the electronics industrie, has recently announced a new service which will allow participants in international trade transactions to send and receive EDI-based documents through the Internet.

Online providers of financial services

51. For larger trade transactions, many of the traditional financial and risk management tools, such as letters of credit, factoring and export credit insurance, will continue to be needed. However, many of the leading providers of these services have developed secure online capabilities for communicating with their customers, thus shortening the required lead times and reducing documentary errors.

52. Trade-related financial service providers with a website include:

(a) Trade finance and letters of credit: ABN-AMRO Bank (Netherlands), First Union Bank (United States), Bank of America (United States);

(b) Export credit insurance: American Credit Indemnity (United States), Trade Indemnity (United Kingdom), COFACE (France);

(c) Factoring: Factors Chain International.

Online Payment Systems

53. There are a number of electronic payment systems and security protocols being developed to facilitate secure web transactions. Many are oriented towards retail transactions although some will have applications in business-to-business commerce as well. "Session level protocols for secure communications", are not electronic payment systems as such but mechanisms for transmitting information over the Internet in a secure manner. One of the earliest Internet Security Protocols, the Secure Socket Layer (SSL) protocol, is currently the most popular protocol for the secure transfer of information over the World Wide Web. SSL, which was developed by Netscape, can be used to provide security not just for payments over the Internet but also for other types of server-to-client communications. Its popularity as a secure transmission protocol has allowed it to become the most popular method of conducting financial transactions over the World Wide Web, with over 65,000 SSL-enabled hosts.

Credit and debit cards

54. The major credit card companies are developing their own approach to enabling secure payments over the Internet. The major initiative is the Secure Electronic Transactions (SET) protocol, which was jointly developed by MasterCard and Visa with the backing of Microsoft, Netscape, IBM and a number of other technology firms. The stated goal of this consortium is "to develop a single method that consumers and merchants will use to conduct bankcard transactions in cyberspace as securely and easily as they do in retail stores today". SET is an open standard, multiparty protocol for conducting secure credit card payments over the Internet. The SET specification is based on public key cryptography and digital certificates.

55. Credit card-based payment alternatives using SSL, SET and other technologies are being marketed by Cybercash, Open Market and Checkfree, among others.

Electronic cash and micropayment systems

56. The term "electronic cash" defines a category of electronic payment systems that attempt to replicate the benefits of cash in the off-line world. Micropayment systems are intended to facilitate the online purchase of information and services in very small denominations, usually below the minimum charge amounts permitted by the credit card companies. Typically, these systems require the consumer to purchase the electronic currency from the micropayment vendor or the content provider. This bulk purchase is paid for with a credit card and the currency is then stored in a smart card, or in a "wallet" which resides in the user's hard drive or at the micropayment vendor or content provider's website. Each time a consumer makes a purchase from a content provider, their wallet is debited the appropriate amount of currency. Major providers include Digicash, Mondex and CyberCash. UNCTAD' SEAL Initiative will also incorporate smart card technology in its menu of services.

57. Many of these payment technologies are not yet available in the developing world or face legal and institutional obstacles in their use within certain countries. For example, many credit card providers in developing countries still require a handwritten signature to process a credit card transaction. Also, financial institutions in many parts of the world do not have the capability to support these electronic payment options. Therefore it may be some time before enterprises in these countries can operate fully commerce-enabled websites.

B. Implications for Governments

58. In order to ensure that their citizens can realize the trade and economic benefits accruing from the global information network, governments need to evaluate their legal system, telecommunications and technology environment, trade regulation regime and other key aspects of their commercial economy. Ideally this should be undertaken in partnership with the private sector so that the Government gains a better understanding of the commercial opportunities and constraints facing firms. Mutual understanding of the key issues can then lead to the development of an agreed strategy and prioritized plan of action to address the key issues.

59. Some of these key issues are:

(a) *Promotion of a competitive telecommunications services environment.* The rapid spread of networks, with adequate bandwidth and complete inter-operability, requires a telecommunications environment which features competition in services (and their resale), facilities and infrastructure. An independent telecommunications regulator is usually needed to ensure that competitors can access essential facilities and interconnection services on fair terms and conditions. Without a competitive market and open access to services, the resulting higher costs will inhibit the effectiveness and cost-competitiveness of the local business community in the international market place. Many developing countries may find it more difficult than others to stimulate the emergence of such a competitive market, for example if they do not have the critical market size to attract a sufficient number of operators. Adequate external support and assistance should be considered in such cases by relevant institutions and international donors.

(b) *Development of a suitable legal framework for electronic commerce.* Governments need to adapt their current legal and regulatory framework to address the unique characteristics of electronic commerce and enable business to take full advantage of the opportunities for increased trade. Information technology applications in international trade, featuring electronic documents and secure transmission and authentication methods, have enormous potential to lower operational costs and speed the transaction (and payment) cycle. These benefits translate into increased responsiveness by local exporters to their overseas customers and the ability to compete for business in the fast-paced just-in-time environment which characterizes much of international commerce today. However, when setting up the "global rules" that electronic commerce requires, it will be important to ensure that the specific characteristics and constraints of developing economies are properly understood and addressed.

(c) *Promotion of open standards and inter-operability of networks.* Many Governments are heavily involved in the standard-setting process, which requires significant efforts and expertise to keep in step with technological advances. Where possible, Governments should assess the merits of devolving this responsibility to qualified private-sector bodies. Many key elements within the electronic commerce environment, such as security and electronic payment technologies, are still emerging. Therefore Governments could put local businesses at a disadvantage by endorsing standards which are proprietary or inconsistent with those of their trading partners, and could create barriers to free trade.

(d) *Creation of a duty free area in cyberspace.* Governments need to carefully consider the ramifications before imposing customs duties or new taxes on electronic commerce, particularl, in the case of "virtual" goods. One of the defining characteristics of electronic commerce is the ease with which business and retail consumers can make comparisons as they shop for goods and services; this means that competitive distortions created by tax and tariff barriers become readily apparent. Such barriers can reduce the ability of local firms to win business abroad and could drive technology-based businesses to countries with more favourable tax regimes. At the same time, the disruptive effects which duty-free Internet-based electronic commerce could have on weaker economies should be carefully weighed and, if possible, measured.

(e) *Governments as participant in electronic commerce.* Governments too can realize significant cost savings through the use of the Internet in procurement as well as other aspects of public administration. Governments can act as a catalyst for the development of a critical mass of local consumers and businesses buying and se.ling through electronic channels, which will attract increased private-sector investment in electronic commerce capabilities.

(f) *Participation in international fora on intellectual property rights, commercial regulations, Internet content control and privacy.* There is a need to continue the efforts already under way to safeguard intellectual property rights and harmonize other elements of international trade law. In addition, Governments would benefit from participating in efforts to deal with problems concerning Internet content and the privacy of personal data, since these are emerging areas of international concern which could result in unintended trade barriers if not addressed in a consistent manner.

(g) *Development of support programmes to help enterprises and individuals to become involved in electronic commerce.* SMEs continue to experience difficulties in developing the training and expertise required to participate effectively in international trade and electronic commerce. Governments need to consider the benefits of increasing investment in human resource development in technology and business-related disciplines. Trade Points in many countries have provided these support capabilities, but require more resources to meet the latent demand in most of the economies in which they operate.

Conclusions

60. From the point of view of developing countries, access to participation in electronic commerce raises several types of policy issues, in this context the following could be considered as appropriate policy objectives:

- Offering the proper regulatory, fiscal and economic framework to modify the current cost structure of Internet usage: stimulating awareness among potential users (especially small- and medium-sized enterprises), enhancing competition among Internet Service Providers (ISPs), attracting competence from the more experienced players, and fostering capacity building (including through training) of local players;

- Granting priority to the provision of those electronic-based products and services which are most likely to enhance local trade efficiency (e.g in the area of procurement, customs operations, or payments) or competitiveness (e.g. through the identification of niches, or global dissemination of electronic catalogues or ETOs).

TD/B/ COM.3/ 18

Readex
Fiche

UNITED NATIONS

TD

United Nations Conference on Trade and Development

Distr.
GENERAL

TD/B/COM.3/18
1 October 1998

Original: ENGLISH

TRADE AND DEVELOPMENT BOARD
Commission on Enterprise, Business Facilitation and Development
Third session,
Geneva, 23 November 1998
Item 2 of the provisional agenda

PROVISIONAL AGENDA AND ANNOTATIONS

I. PROVISIONAL AGENDA

1. Election of officers

2. Adoption of the agenda and organization of work

3. The implications of the post-Uruguay Round economic environment for enterprise development, including policy issues relevant to inter-firm cooperation and clustering

4. The impact and relevance of electronic commerce on trade growth and development

5. Provisional agenda for the fourth session of the Commission

6. Other business

7. Adoption of the report of the Commission to the Trade and Development Board.

GE.98-5184I

II. ANNOTATIONS TO THE PROVISIONAL AGENDA

Item 1 - Election of officers

1. Rule 18 of the rules of procedure of the Main Committees of the Trade and Development Board states that: "At the commencement of the first meeting of each regular session, the Committee shall elect a Chairman, five Vice-Chairmen and a Rapporteur from among the representatives of its members. These officers shall constitute the Bureau of the Committee. In electing the officers, due account shall be taken of the need to ensure an equitable geographical distribution". Moreover, rule 19 indicates that "the Bureau of the Committee shall consist of seven members, including four members from Groups A and C combined, two members from Group B and one member from Group D, referred to in the annex to General Assembly resolution 1995 (XIX) as amended". According to the cycle of rotation, the Chairman of the Commission at its third session shall be a representative of a State member from List B and the Rapporteur from a State member of List D. The five Vice-Chairmen shall therefore be distributed as follows: 4 from List A and C combined and 1 from List B.

Item 2 - Adoption of the agenda and organization of work

2. The provisional agenda in section I above was approved by the Commission on Enterprise, Business Facilitation and Development at its second session (TD/B/45/3-TD/B/COM.3/11, annex IV).

Organization of work

3. The Commission will have five working days, from 23 to 27 November 1998, to complete its work. It is suggested that Monday, 23 November, and the morning of Tuesday, 24 November, be devoted to formal and informal discussions on item 3 of the provisional agenda.

4. The remaining substantive item of the provisional agenda (item 4) will be taken up on the afternoon of Tuesday, 24 November, and on Wednesday, 25 November. Thursday and Friday will be devoted entirely to discussing the outcome of the Commission.

5. The reports of expert meetings will be considered under the appropriate agenda items.

Documentation

TD/B/COM.3/18	Provisional agenda and annotations

Item 3 - The implications of the post-Uruguay Round economic environment for enterprise development, including policy issues relevant to inter-firm cooperation and clustering

6. With a view to expediting substantive discussions at the Commission's session, the secretariat has prepared an issues paper entitled, "Policy issues relevant to inter-firm cooperation, networking and clustering" (TD/B/COM.3/19).

7. The paper is based on the main findings of the expert meetings organized during the year, reports submitted by various experts at those meetings and the research currently undertaken by the UNCTAD secretariat. The paper briefly describes the new competitive environment of the post-Uruguay Round period. That environment is a given and as such is not currently an object of investigation by the secretariat. The paper emphasizes the fact that small and medium-size enterprises are under pressure to innovate and change but do not have the resources to do so. Inter-firm cooperation, networking and clustering can help fill this "resource gap". SMEs can interface internationally via formal partnering arrangements, and domestic firms can interface locally through clustering and networking. The paper explores the main findings of the expert meetings in terms of appropriate policies and support mechanisms for promoting partnering, clustering and networking.

8. Following the decision made at the second session of the Commission, the Expert Meeting on Inter-firm Cooperation was held from 20 to 22 April 1998. The report of the Expert Meeting is contained in document TD/B/COM.3/12-TD/B/COM.3/EM.4/3. The Expert Meeting on Clustering and Networking for SME Development was held 2-4 September 1998. The report of the Expert Meeting is contained in document TD/B/COM.3/14. In taking note of the reports of the Expert Meetings, the Commission may wish to endorse the recommendations contained therein.

Documentation

TD/B/COM.3/19	Policy issues relevant to inter-firm cooperation, clustering and networking
TD/B/COM.3/12- TD/B/COM.3/EM.4/3	Report of the Expert Meeting on Inter-firm Cooperation
TD/B/COM.3/14- TD/B/COM.3/EM.5/3	Report of the Expert Meeting on Clustering and Networking for SME Development

Item 4 - The impact and relevance of electronic commerce on trade growth and development

9. Responding to the request made by the Commission at its second session to undertake analytical work on trade efficiency, the secretariat has prepared two reports in areas related to electronic commerce and development.

10. The report on " Implications for trade and development of recent proposals to set up a global framework for electronic commerce" (TD/B/COM.3/17) examines some of the financial issues (including fiscal aspects), the legal issues (including intellectual property, security and market access aspects) and issues of access for small and medium-sized enterprises presented by the European Union, Japan, the United States and the OECD secretariat in the context of a global framework for electronic commerce, as well as their potential consequences for trade and development.

11. The report "Policy issues relating to access to participation in electronic commerce" (TD/B/COM.3/16) has two main objectives: (1) to assess the current state of connectivity/accessibility of various countries and groups of countries to Internet-based electronic commerce; and (2) to identify main areas in which policy issues need to be addressed in order to enhance access to participation in electronic commerce.

12. Following the decision made at the second session of the Commission, the Expert Meeting on Capacity-building in the Area of Electronic Commerce: Human Resource Development was held from 29 June to 1 July 1998. The report of the Expert Meeting is contained in document TD/B/COM.3/13-TD/B/COM.3/EM.6/3. In taking note of the report of the Expert Meeting, the Commission may wish to endorse the recommendations contained therein.

13. Responding to the request made by the Commission at its second session to report on progress made to finalize the methodology for a trade efficiency assessment (TEAM), the secretariat has prepared an update (TD/B/COM.3/15).

Documents

TD/B/COM.3/17	Implications for trade and development of recent proposals to set up a global framework for electronic commerce.
TD/B/COM.3/16	Policy issues relating to access to participation in electronic commerce.
TD/B/COM.3/13- TD/B/COM.3/EM.6/3	Report of the Expert Meeting on Capacity-building in the Area of Electronic Commerce: Human Resource Development
TD/B/COM.3/15	Trade efficiency assessment methodology (TEAM) an update

Item 5 - Provisional agenda for the fourth session of the Commission

14. The secretariat will submit a draft provisional agenda for the fourth session of the Commission to the meeting for its approval.

Item 6 - Other business

Item 7 - Adoption of the report of the Commission to the Trade and Development Board.

15. The report of the Commission on its third session will be considered by the Trade and Development Board.